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Original Communications.

HOUSE-DRAINS.

By GEORGE DERBY, M.D. Harv.

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By the use of water-closets and their attendant conveniences of fixed wash-bowls, and bathing-tubs and kitchen sinks, our city houses are brought into close communication with the sewers, and their occupants are thereby exposed to special dangers.

Whatever gases are contained in these underground passages seek not only to diffuse themselves under the law of nature with regard to gaseous bodies, but are also frequently subjected to severe pressure. These gases are dangerous to health. What the specially noxious element in them is no one can define. It is evidently neither carbonic acid nor sulphuretted hydrogen, nor any other of the gases with which chemists are familiar in the laboratory. There is something beyond all this, coming from the decay of organized substances in a closed, pent-up position, without the free access of light and of air, which at times gives rise to the most virulent poison, and to the most destructive forms of disease.

The sensible properties of sewer-air are quite remarkable. It is by no means fetid, as many people suppose, neither is it pungent or ammoniacal. It is rather negative in character, faint in odor, mawkish, smelling perhaps more like soap than any other familiar substance.

Sewer-air may escape very freely in our dwellings before its presence will be suspected, and that this happens very often there can be no sort of doubt. There are many reasons for this belief. One cause for such escape, and a very active one, is found in the difference of temperature between the interior of our houses and the interior of the underground sewers. A rarefaction of air and an upward current are thus induced. The joinings of the soil-pipes are imperfect from alternate expansion and contraction by exposure to hot and cold water, and, unless a free and safe vent is provided above, there must be leakage at these points.

The air of the sewers is also subject to pressure from the sudden influx of water in rain-storms, and in seaboard towns from the action

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of the tide. In Boston, all or nearly all the outlets of the sewers are below the level of the sea at high water. As the tide rises, it displaces sewer-air, which is pressed inwards, and must inevitably escape at some of the sewer inlets. There can be no doubt that the rain-water conductors often serve the purpose of conveying safely away the imprisoned air thus seeking a vent*—an office not generally thought of in their construction. But their usefulness in this way depends upon their being left untrapped, which is not always the case. Frequently, instead of passing directly to the principal house drain without obstruction, they enter a water-sealed cesspool. But the rain-conductors, while sometimes acting as drain-ventilators, are inoperative when the house-gutters and pipes are filled with water in a heavy rain-storm. Neither do they relieve the pressure on the soil-pipes within the house caused by expansion of the enclosed air by heat. We have then remaining only the water traps of sinks, bath-tubs, wash-basins and water-closets as defences against the air of the sewers. There is, however, another risk to which the health of the family is exposed through these contrivances, in addition to those which come from upward pressure, or from defective construction of the traps, or from unsoldering of their connections of iron and lead, or from their corrosion and decay by time and use. Whenever a large amount of fluid is thrown down the soil-pipe, whether from the bath-tub or any other opening, the tendency is to the formation of a vacuum behind it, and atmospheric pressure causes a suction upon every trap which is at a higher level. This may be shown at any time by pouring down a bucket-full of water and observing the commotion which ensues in all the traps above it. It not unfrequently happens that the water of the trap is in this way sucked or "syphoned" out, and the pipe consequently remains open to the sewer, and the trap empty until filled again by the next use of the water.

There is also an obvious escape of the air of the soil-pipe corresponding with its constant daily use. Whenever fluids are introduced, a certain amount of air is displaced, and must go somewhere. Unless other vent is provided, it flows directly upwards.

For all these reasons we would advise giving the whole drainage plan of a dwelling the freest possible communication with the outer air at a point so elevated that the sewer gases cannot fail to be diffused and got rid of. This can readily be done, while building, by carrying the soil-pipe, made of iron, at full size through the roof, and leaving it open like a chimney. By this arrangement, all stagnation is prevented; the contents of the house-drains are constantly exposed to the oxidising and purifying influence of currents of air; when rain-conductors are filled with water there is still free escape for the sewer gases; and the water traps throughout the house are

* This fact was noticed by Dr. Francis Minot in the Boston Medical and Surgical Journal Jan. 23, 1854.

relieved from pressure both of the pent-up sewer air on the one side, and of suction, or atmospheric pressure, on the other.

In houses already built, a lead pipe may be readily carried from the highest point of the soil pipe directly through the roof—but the larger the pipe and the straighter its course the better. In one instance, at least, where this latter plan has been adopted, a constant current is found to flow outwards through the pipe.

102 Charles Street, Jan. 1873.

CYST OF THE POPLITEAL SPACE, COMMUNICATING WITH THE
KNEE-JOINT, AND DESCENDING BY GRADUAL DISTENTION
TO THE CALF OF THE LEG.

By W. C. B. FIFIELD, M.D. Harv.

J. B., machinist, aged 60, has had, for the last twelve years, chronic synovitis of both knee-joints. He was for a very considerable time at the Massachusetts General Hospital without receiving any benefit, and was discharged as incurable. He then came under my care as a private patient.

Both knees, being greatly distended with fluid, were punctured in October, 1868, with a common trocar, and the liquid, amounting to some ounces, drawn off. They were then injected with equal parts of tincture of iodine and water. This proceeding was repeated three times, the last time tincture of iodine of full strength being injected. Some pain and inflammation followed, but not enough to cause a radical cure.

In the summer of 1870, after a slip made on the stairs, he noticed, for the first time, a small, rounded tumor in the left popliteal space, and soon afterwards another in the right. That of the left increased very rapidly in size, so that in the autumn of 1870 it extended between seven and eight inches below the joint, entirely across the upper back part of the leg, and was more than twice as large as the fist, smooth on the surface and distinctly fluctuating.

I punctured the tumor, obtaining a good deal of oily liquid, and some masses resembling bits of hard, yellow fat came through the canula. Violent pain followed, the patient became typhoid, and three days later I laid the whole cyst open from one end to the other. The same oily liquid escaped, together with handfuls of hard, yellow masses, having the odor and appearance of commencing gangrene. On the following morning the typhoid condition had passed away. The extensive wound healed by granulation in a sufficiently short time.

At the expiration of three or four days from this operation, the knee-joint became exquisitely tender and painful, the patient again becoming typhoid and prostrated. A free incision was therefore made in the joint, evacuating thereby a quantity of pus. Again the

patient rallied, the health became re-established, and, although the joint continued to discharge pus, by occasional injections of tincture of iodine the discharge ceased. The limb, having been kept in a straight position, was now strongly flexed, and the fibrous adhesions yielded with an audible tearing sound. The patient, being an ingenious man, contrived an apparatus for alternately flexing and extending the limb, and eventually recovered with a very useful leg.

In the winter of 1871-72, the cyst in the right popliteal space having attained a large size, and the knee-joint being greatly swollen, I made an incision into the cyst. After evacuating the liquid, free bleeding took place from the edges of the cyst, and it being impossible to find any vessels to tie, it was finally checked by the use of a solution of ferric alum. The knee-joint was now injected (directly, and not from the cyst) with tincture of iodine of full strength without effect, although the injection was allowed to remain in the joint. A seton was passed through the joint and allowed to remain twelve hours. At first this seemed ineffectual in exciting inflammation, but at last characteristic pain and tenderness appeared, and the joint was laid open with the knife. This time some troublesome hæmorrhage occurred from the edges of the cut. Suppuration became freely established, and, soon after, the cyst in the ham inflamed, broke and discharged abundantly, thus reversing the case of the first joint and cyst.

The patient speedily recovered, and now has two useful legs.

I make the following quotation from Richet's *Traité d'Anatomie Médico-Chirurgicale*:—

"The popliteal region is frequently the seat of tumors, particularly cysts and aneurisms. Serous cysts may be developed either in the numerous bursæ that are here met with, or in the accidental bursæ that arise in the sub-cutaneous or sub-aponeurotic cellular tissue. Some of them evidently originate in the articular synovial membrane, and I have for a long time preserved a preparation upon which is seen the pedicle of a cyst, which, filling a part of the popliteal space, extends into the articulation through the fibres of the posterior ligament."

Harrison Square, January 13, 1873.

THE BRIDAL TOUR IN A HYGIENIC LIGHT.—The practice of departing on a journey immediately after marriage may involve some evil consequences. Travel, besides inducing constipation directly, interferes with the convenience of regular defecation, which is a habit essential to health. The most serious results may follow constipation produced in this way. A case is reported in a French journal of a young married lady who had no relief of the bowels during two weeks of travel on a bridal tour, and who lost her life by the peritoneal inflammation which ensued. There are other considerations that will suggest themselves, having reference to the functions of the uterus, and leading to the conclusion that the "bridal tour" is not consistent with the laws of health, and might well be abolished.—*Pacific Med. and Surg. Journal.*

Progress in Medicine.

REPORT ON DISEASES OF CHILDREN.

By D. H. HAYDEN, M.D.

[Concluded from p. 113.]

ON THE USE OF PANCREATIC EMULSION IN THE WASTING DISEASES OF CHILDREN.

HORACE DOBELL, M.D.—[*Practitioner*, October, 1872.] The author proposes this remedy for that wretched form of atrophy, debility and marasmus in children, where every part of the body wastes away except the abdomen, the state described by Dr. Druitt in his *Vade Mecum* in the following few and graphic words: "Emaciation and voracity; the belly swelled and hard; the skin dry and harsh; the eyes red; the tongue strawberry colored; the breath fœtid; the stools dark colored and offensive; the bowels sometimes costive, sometimes extremely relaxed; the patient usually dies hectic." The author desires to bring prominently forward that this state, provided there is no advanced lung disease, is rapidly cured by pancreatic emulsion given in doses of a teaspoonful every four hours, and regularly persisted in until fat and flesh are restored. It is, of course, necessary that a proper diet should be insisted upon at the same time, but proper diet without the pancreatic emulsion will not do. In addition to the stress laid upon the influence of the salivary and pancreatic juices upon the digestion of starch in Dr. Prospero Sonsino's paper, the author says we must not forget the action of the pancreatic juice upon fat, and it is probable that the two functions of the pancreas are sufficiently independent of each other that they may act separately. As shown by experiments, in addition to the action of the pancreas upon fats, it has the power to convert starch into glucin by simple mixture, and this property remains to a certain extent after the pancreas has exhausted its power of acting upon fat. It is possible, therefore, that in different states of depraved health, the one or the other of these properties may be deficient. It is evident that when the power of digesting fat fails to be developed at the proper time, the defect must tell with double force upon children already suffering from deficient digestion of starch.

The children who become the subject of the kind of wasting now spoken of are especially: (1) those suckled by mothers whose milk, though abundant, is extremely deficient in nutritive properties; (2) those brought up by hand; (3) those who, at a later period of childhood, have been subjected to similar chronic defects of diet. It is especially when the mother's milk is poor in fat and lactin that the child becomes dissatisfied and craving; and, in the majority of cases, it is this that first leads to the introduction of farinaceous food under the popular nursery belief that it is satisfying. As Dr. Sonsino says, if this is given before the power of digesting starch becomes established, of course nothing but mischief can be the result. In the same way that the mother is deprived of fat elements by lactation so is the child deprived of them by persistency in a diet deficient in milk. The injury is a double one, first by cutting off the supply of fat elements

necessary for the protection of the tissues, secondly by paralyzing the functions of the pancreas by prolonged inactivity. This latter is a point the author thinks deserving great attention, and thus accounts in great measure for the impossibility of restoring those ill-nourished, wasted children by any kind of natural diet after they have been allowed to remain in a chronic state of defective nutrition. The author cites three of the very numerous cases where he has seen pancreatic emulsion administered followed by almost magical recoveries. No amount of milk or cream will take the place of the emulsion, the explanation why, notwithstanding milk is also an emulsion of fat, the author thinks turns upon the following points: (1) The fineness of the particles of fat in the pancreatic emulsion; (2) the permanent character of the molecular mixture; (3) the fact that different fats in the pancreatic emulsion, consisting, principally, of stearine, margarine and palmitine, have a high melting point, thus differing from the fat of milk, oleine, which has a low melting point.

DISEASES OF THE EAR IN CHILDREN.

DR. JULIUS BÜKE.—[*Jahrb. f. Kinderheilk.*, December, 1871.]—The author gives, in this article, the result of the treatment of eighty-four children for diseases of the ear. Diseases of this organ must be of great interest to all physicians engaged in the treatment of children, owing to the more injurious effects left behind than in cases of adults, the same pathological changes, which causes only deafness in the adult, preventing the child from learning to speak or to understand language, the development of the mind being checked, and many children having become deaf and dumb merely from neglect of diseases of the ear existing in earliest infancy. Pathological changes often cause such complications of symptoms as to render the diagnosis very difficult, sometimes impossible, without examination of the ear. It is not rare that loss of consciousness and high fever are caused by a collection of matter in the tympanum, the symptoms disappearing with its escape.

From the peculiarity of the anatomical structure of the ear in infancy, minutely described by the author, great care is necessary both in examination and treatment. Up to the end of the first year, great caution is required in the use of the syringe; in such cases, cleaning with pledgets of lint being preferable. Diseases of the external meatus in children up to seven years old are more frequently primary than secondary, after which age they are generally complicated with disease of the tympanum, and it is then difficult to decide which was first affected. It frequently happens that inflammatory symptoms make their appearance in the external ear passage simultaneously with the breaking through of a tooth. The treatment for external otorrhoea recommended is to wash out the external meatus with luke-warm water, or, if the secretion is very abundant, to use several pledgets of lint for cleaning the same. In many cases this suffices to cause the disappearance of the discharge in eight days. When this does not happen, the author uses a solution of plumbi acetatis, gr. ij., ad aquæ, glycerinæ aa ʒss., after each washing, five drops being dropped into the ear.

Foreign bodies in the ear rarely cause of themselves any particularly bad effects, such, when ensuing, being much more attributable to sup-puration set up by too rough attempts for their removal. Removal

should be attempted in the most gentle manner, and the best means is syringing with luke-warm water.

Inflammation proper of the middle ear, that is, where the discharge is purulent as distinguished from simple catarrh, was always ushered in by high fever, and sometimes severe cerebral symptoms preceded the appearance of the discharge. The treatment of suppurative otorrhœa in the middle ear, where of only few days' duration, consisted in syringing out the ear once to thrice daily, according to the amount of secretion; more frequent syringing or the use of astringents proved injurious. When suppuration had existed for any length of time, astringent solutions (zinci sulph., tinct. ferri muriatis, alum) were employed. Polypi were touched with argent. nit. The lapis, he employs previously melted in a porcelain dish and, to the size of a hemp-seed, hardened upon the end of a probe; also, in such cases, blowing in powdered alum has proved useful. The average duration of treatment was six weeks, the perforation of the membranum tympani not always having cicatrized in this time, this sometimes not taking place for several months after the cessation of the discharge. Catarrh of the tympanum occurred always in connection with tonsillitis or nasal catarrh, and disappeared simultaneously with the cure of these.

ON ERYSIPELAS IN EARLIEST INFANCY.

H. J. ABELIN.—(*Schmidt's Jahrbuch.*, 1872. No. I.)—The author admits three forms of erysipelas found in infants. The first form, which makes its appearance shortly after birth, is the most dangerous, and appears to stand in some relation with a blood poisoning of the mother dependent upon puerperal disease. The second form, affecting children between two months and one year of age, traumatic erysipelas, is the mildest of the three diseases, its course is a favorable one, and it remains limited to the neighborhood of the injured spot unaccompanied by any severe symptoms. The third form, the so-called wandering erysipelas, makes its appearance without any demonstrable internal or external lesion, and has a disposition to spread rapidly over the whole surface of the body or over large portions of the same; the skin is not only reddened, but is swollen and has a shiny appearance; there is always high fever. From the manner of its appearance, this form is evidently one symptom only of a general blood disease. The circumstance that no benefit is derived from local remedies speaks also for this explanation, a favorable result being obtained only by internal treatment with tonics and other constitutional remedies. The author recommends very strongly the use of the hot bath, which is followed by a rapid lowering of the temperature and diminution of pain, and he is of the opinion that, when used at the commencement, the extension is in a great measure limited; the respiration, also, becomes deeper and easier and the pulse slower. Abelin's method of using the bath is to place the child in a tub and slowly pour over it water at 38° C., then gradually adding hot water until the temperature reaches 40–42° C. In accordance with the age and strength of the child, as also with the effect produced, it is to remain from fifteen to thirty minutes or longer in the water, is then wiped dry, and is to lie wrapped in a warm blanket for one or two hours; in severe cases the bath to be given twice daily, in light cases but once, and this treatment is continued until convalescence commences. The author cites three cases in corroboration of the benefit of the above treatment.

USE OF QUININE IN FEBRILE DISEASES OF CHILDREN.

E. HAGENBACH.—[*Jahrb. für Kinderheilk.*, March, 1872.]—The author's object in this communication is to prove the favorable action of quinine in reducing the temperature in febrile diseases of children, by which means the disease is rendered a milder one, and in many cases complications of troubles of the nervous system and respiratory organs are prevented. He uses quinine in typhoid fever, and in all the various febrile diseases, when the temperature is continuously high for several days; he combines it with baths between 20° and 24° C., repeated every three hours as long as the temperature remains above 39° C. In pneumonia, he uses baths with older children, with smaller children wrapping in cold sheets is often preferred as less dangerous; at the same time he gives quinine. Scarlatina, the author treats almost exclusively with baths and quinine. This treatment has also been used with good effect in his later cases of erysipelas. Other diseases enumerated as so treated are acute rheumatism, acute periostitis, coxitis with high fever, and several other surgical diseases. It is the combined action of the bath and of the quinine that the author lays stress upon. The quinine is given in one large dose, or in two smaller doses at half-hour intervals, and when the temperature is below 39° C., it is left off. No bad after-effects were noted. The amount to be given varies with the age. For children between one and two years old, from five to sixteen grains; between three and five years, from eight to sixteen grains; between six and ten years, from ten to twenty grains; between eleven and fifteen years, from ten to thirty grains. The largest doses are generally to be preferred. The beneficial effects upon the sensorium, the circulation, subjective symptoms, &c., by baths, cold wet sheets and quinine are, beyond doubt, as great in children as in adults, the strength is better kept up and convalescence hastened. Appended is a thermometric table of several of the cases thus treated.

ON THE USE OF QUININE IN WHOOPING COUGH.

A. STEFFEN.—[*Jahrb. f. Kinderheilk.*, N. F. iv. 2; *Schmidt's Jahrb.*, 1872, No. 32.]—Since the autumn of 1868, Steffen has used quinine in various cases of pertussis convulsiva, and generally with good result; in some cases, on the contrary, there was but slight effect, or none at all. On an average, he gave children between two and five years old, eight to sixteen grains within twenty-four hours. In one case, where the child could not be made to take the medicine, it was used in enema, nine being given in the course of three days, each containing half a drachm. The author reports two cases where the action of quinine seemed quite remarkable.

CHOREA.

[*Schmidt's Jahrbuch*, 1872, No. 5.] Dr. Oxley [*Liverpool Med. and Surg. Rep.*, ii. p. 24, Oct., 1868] reports twenty-one cases of chorea in the Children's Hospital in Liverpool. His statistics embrace, in all, forty-one cases. Of these, sixteen were boys and twenty-five girls. The majority of boys were under ten years of age; the girls between ten and twelve. In eight cases, the cause was fright and anxiety; in four there was a complication of heart disease. Most of the children were weakly; in four there was hereditary predisposition. The duration of the disease was between 11 and 120 days (average 59 days). All recovered. Generous diet, with iron, was the treatment adopted. Cannabis indica and cold and warm douches proved efficient sedatives. Strychnia had no influence upon the disease.

Dr. C. Ritter, of Oberndorf a. d. Oste, in remarks upon the theory and therapeutics of chorea, referring only to cases coming under the head of chorea minor, and occurring shortly before puberty, considers, as the most effectual and trustworthy remedy, the inhalation of chloroform. Mild cases he has seen recover within three weeks under this treatment, severe cases inside of eight weeks. The exceptions, when this failed, were very few. Improvement commences after the first inhalation and continues steadily. Complete narcosis is not necessary, the inhalation to be stopped as soon as the musculus levator palpebræ superior begins to relax. In the beginning, more chloroform is needed than afterwards. With children twelve years of age, Ritter uses at first fifteen grammes, later only ten. Until the improvement is marked, the inhalations should be given daily; later, every other day is enough.

Gray (*Lancet*, ii. 23, Oct., 1871) and Tuckwell (*Ibid.*, 24) report twelve cases of chorea in the Radcliffe Infirmary, Oxford, where complete recovery took place within twenty weeks at the longest, the treatment in each case being purely expectant, without medicine of any kind. The majority of the cases did not last over twelve weeks, the mean duration being a little over ten weeks. With one exception, they were all children, the exception being a woman twenty-six years of age, and in this case the duration was seventeen weeks. The authors are of the opinion that chorea always takes its own course, and for this reason they tried the expectant treatment. A comparison with a series of cases treated with arsenic gave as results that in the latter the mean duration was no shorter.

J. LEWIS SMITH (*Med. Record*. No. 38, 1872), after alluding to the very important part played by hygienic rules, under the head of medical treatment, speaks of iron as indicated in the great majority of cases by the anæmic condition of the patient. This does not exclude the simultaneous use of other medicines of a more specific nature. Arsenic, recommended by Romberg and others, can be used subcutaneously; thus Romberg, by fourteen injections of from two to seven drops of Fowler's solution each, succeeded in stopping choreic movements of the neck in an adult which were of nine years' duration. Strychnine, introduced by Trousseau, shortens, without doubt, the duration when given in gradually increasing doses, and produces a marked improvement in the patient's general condition. Bromide of potassium is ineffectual, and the author has abandoned its use entirely. Of the many highly-esteemed nervous tonics, as, for example, assafetida, valerian, musk, zinci sulphat., turpentine, &c., sulphate of zinc has proved itself the best. Smith mentions, also, the treatment employed by Radcliffe in simple chorea, which consists in the administration of cod-liver oil with the hypophosphite of soda. In severe cases, with sleeplessness, a moderate dose of chloral hydrate can be added. Of the different methods of local treatment, as baths, douches, frictions over the spinal column, electricity, &c., the ether spray deserves the most consideration. For each sitting, two ounces of ether suffice for the whole vertebral column as soon as the chorea has become general, to be repeated daily, or every other day.

ON THE USE OF MERCURY IN DISEASES OF CHILDREN.

WM. STEPHENSON.—(*All. Med. Cent. Zeitung*, 1872, No. 24).—The author draws the following conclusions from his observations (*Edinburgh Med. Journal*, xvi. p. 980):—

1. Mercury can be employed in diseases of children without danger to the constitution or general health.

2. There is danger only when it is given in such doses that its so-called physiological effects are produced in a marked degree, a proceeding never necessary for remedial purposes.

3. This physiological effect is produced as rapidly and easily with children as with adults, if not easier, and is to be judged not so much by the condition of the gums and saliva as by the depressing effect upon the nervous system and the deterioration of the blood.

4. Only so much mercury should be given as suffices to excite the metamorphosis of tissue; never more, and never for a long period at one time, but always with intermissions.

5. The value of mercury as an antiphlogistic is a very limited and doubtful one, but it furthers the absorption of inflammatory products, and has a marked ameliorating influence upon perverted processes of nutrition.

6. The correctness of this fact is in no way shaken by the unsuitable cases where mercury has been used and the constitution impaired; no more so is it by the not less numerous observations of diseases where recovery has taken place without its use; for the number of cases cured by this medicine where all other remedies had failed is equally great.

HÆMOPHTYSIS IN CHILDREN.

DR. V. RASMUSSEN.—(*Hospitalstidende*, xiv., p. 109–113, *Nord. Med. Ark.*, iv. 1. No. 7, p. 21, 1872; *Schmidt's Jahrb.*, 1872, No. vii.)—Hæmoptysis, as is well known, is a very rare occurrence in children under six years of age, either as an initial symptom of phthisis or during the course of that disease. The following observations are, therefore, of great interest. As an example of an idiopathic initial hæmoptysis, Rasmussen relates a case where it came on in a boy, aged eleven years, on entering a hot room, having previously been exercising violently in the cold air. The hæmorrhage was slight and ceased after four days; during the next four months it had not returned. In another case minutely reported by Rasmussen, where a boy died suddenly from hæmorrhage of the lungs, at the autopsy there were found adenitis, suppuration of the glands of the neck and of the hilus of the lungs with perforation of the right bronchus and of the pulmonary artery, catarrhal pneumonia, diffuse interstitial nephritis, and cheesy degeneration of the mesenteric glands. During life, there was dulness on percussion, and auscultation gave bronchial respiration and increased resonance of the voice at the inner portion of the right infra- and supra-spinous region; the cough had a peculiar, cavernous character. General tuberculosis was not found. In a third case, hæmoptysis came on in a boy aged three and a half years, during the course of phthisis, and resulted fatally. At the autopsy, there were found in the lungs, cavities, chronic interstitial pneumonia, peri-bronchitis and miliary tubercles, an aneurism of the pulmonary artery opening into a cavity, miliary tuberculosis of the pleura, spleen, liver and kidneys, cheesy degeneration of the bronchial glands and tubercular ulcers in the ileum. From the detailed description of the anatomical development of chronic pneumonia, partly into cheesy degeneration, partly into interstitial processes, both of which by destruction and breaking down lead to the formation of abscesses, it follows that the disease heals exactly in the same way as in adults. The author ex-

plains the circumstance that hæmoptysis so rarely occurs in children by the anatomical peculiarities of phthisis in such cases. Formation of cavities is rare in children, and when they do take place, this is a result of a necrosis of the central portion of a cheesy mass in which the bloodvessels for a long time have been obliterated, and can consequently give no occasion for hæmorrhage. Only with increasing age does a disposition exist for the formation of cavities similar to that in adults, the walls of which are made up of indurated lung tissue containing bloodvessels not obliterated. Amongst these are also to be classed such as have to a certain degree preserved the character of bronchiectatic cavities, found in adults most frequently, on the contrary, in children, very rarely. Consequently, the formation of dilatations of bloodvessels in children must be less common.

WARM SALT WATER BATHS IN FEVERS OF CHILDREN.

CARL SCHWALBE.—[*Virchow's Archiv*, Aug. 19, 1872, 3 and 4 Heft.] The use of cold baths to reduce the temperature in the fevers of children is often accompanied with great difficulties, and is sometimes impossible. Schwalbe tried in a case of catarrhal pneumonia, in a delicate rhachitic child a little over one year old, warm salt water baths (three to five per cent. salt), at 30° to 32° C. The result was so satisfactory that he urgently recommends their frequent employment. The patient, fourteen months old, was attacked May 7, 1871, with an acute pharyngeal and laryngeal catarrh. On the following day there was catarrhal pneumonia, with high temperature (3, P.M., 39.9° C.) and great dyspnoea. Patient was under treatment from May 6th until June 8th, and the bath was employed daily one to three times. After each bath, lasting from five to ten minutes, there followed constantly a reduction of the temperature one to two degrees C. During the bath, it coughed up large quantities of mucus, which was carefully removed from the fauces with the finger. The child recovered perfectly. Being subsequently attacked with the same disease, and, under his treatment from the 8th to the 24th of January, 1872, the baths were again employed three or four times daily—6, A.M., 10, A.M., 4, P.M., and 10, P.M.—and recovery again occurred.*

THE TREATMENT OF MALIGNANT DISEASE OF THE UTERUS.—Alfred Wiltshire, M.D. (*Brit. Med. Jour.* Nov. 2. 1872) reports two cases of this disease which were treated in accordance with the method of Prof. Simon, of Heidelberg, which consists in lightly scraping away the loose and fungating portions of the invaded tissues, thus leaving a healthier and less painful surface, which is, also, less prone to bleed. In neither case does the result seem to be particularly favorable to this mode of treatment.

Dr. Wiltshire favors the use of chromic acid where there is much bleeding or the discharges are copious and offensive. The acid should be used in solution, and great care should be taken lest it attack sound tissues. Half a drachm of the crystals to one ounce of water makes a very strong solution. It may be used as a vaginal injection, in the strength of a drachm to ten or twenty ounces of water, or even weaker. A judicious general treatment of tonics and narcotics should never be omitted in cases of carcinoma uteri.

* Writers of papers on the Diseases of Children will contribute much assistance in the preparation of these reports if they will forward copies of their papers, addressed to this JOURNAL.—EDS.

Reports of Medical Societies.

BERKSHIRE DISTRICT MEDICAL SOCIETY. J. F. A. ADAMS, M.D., PITTSFIELD, SECRETARY.

FEBRUARY 28th, 1872.—Dr. Mercer, of Pittsfield, reported a case of *Aneurism of the Aortic Arch*, and exhibited the specimen. The patient was a man, aged 46, who had been dropsical for two months. A blowing murmur could be heard over the region of the heart, extending along the carotids and subclavians. At the autopsy, atheromatous disease of the aorta was discovered; and an aneurismal sac, involving the two outer coats, as large as a hen's egg, was found at the right side of the arch, connected with it by a rough, bony orifice, as large as the calibre of the aorta.

Dr. Adams, of Pittsfield, exhibited the *Fœtus of a Deer* lately presented to the Berkshire Athenæum. The doe was shot in the Adirondacks last summer, and was suckling a fawn at the time. On being opened, a fœtus, dry and shrivelled, distorted, and consisting only of bone and a little hardened tissue, was found adherent to the abdominal walls, against the short ribs on the right side, and unconnected with the uterus. It was a case of extra-uterine foetation, with recovery.

Dr. Adams also reported a case of *Gun-shot Wound of the Abdomen*. The patient was a very strong young man, aged 33. The ball, a No. 1 pistol slug, fired from a Smith & Wesson revolver, entered the body, over the sixth costal cartilage, on the right side, passed downward and backwards, penetrating the seventh costal cartilage, and thence into the abdominal cavity. A little fresh blood was vomited at first; and the following day a quantity of black vomit was raised. Symptoms of peritonitis were rapidly developed, with excruciating pain, but the symptoms were all relieved by the free use of morphia. The patient lived fifteen days, retaining his strength remarkably to the last. Twelve hours before death, he began suddenly to vomit large quantities of blood, followed by black vomit, and rapidly sank. There was extreme tympanites, and the pain was chiefly referred to the umbilicus and right hypochondrium. He took, daily, from one to grains of morphia hypodermically, and half a grain every three hours by the mouth. This was enough to mitigate the pain, but he had very little sleep.

At the autopsy, the bullet was found to have penetrated the liver from above downwards, its track being two and a half inches long; then, passing close to the gall-bladder, to have passed through the duodenum, making two distinct orifices, an inch below the pylorus; then, still passing downward, to have penetrated the ileum at about the middle, finally lodging against the crest of the right ilium, behind the edge of the psoas muscle. The bullet was not bruised at all; it was surrounded by a great mass of lymph, and the peritoneum contained a quantity of blood.

Dr. Adams reported *A Case of Hallucination* in an old gentleman, aged 84, who had, for forty years, firmly believed that his stomach was inhabited by a lizard. His symptoms were those of *valvular disease of the heart* and chronic gastritis. His death was sudden, although he had been very feeble for a long time. At the autopsy, the heart was found

hypertrophied, with ossification and contraction of the semilunar, mitral and tricuspid valves; and the aorta and larger arteries were also ossified. The stomach was contracted, its walls much thickened, its lining membrane red, thick and vascular. The lizard was not discovered.

MAY 29th, 1872.—Dr. Lawrence, of North Adams, reported several cases of *Cerebro-spinal Meningitis*, recently under his care. He has had about a dozen in all, of which one was fatal. In all cases there was headache, with pain in the back and limbs, and in several there was screaming. His treatment had chiefly been bromide of potassium and opium. In the first few cases he did not use opium, but found it later to be the only means of producing quiet. Chloral did not have a quieting effect. Counter-irritation was effected by blisters and croton oil.

Dr. Babbitt, of North Adams, said he had also had several cases of cerebro-spinal meningitis lately. In some of them screaming was a prominent symptom. In the case of one young lady, a choraic action of the head remained after recovery. The cases among infants, attended with convulsions, have generally proved fatal.

Colloid Disease of Stomach.—Dr. Babbitt also reported the case of Prof. Hopkins, of Williams College. He had long suffered from dyspepsia, loss of appetite and diarrhoea, and had a tumor, which could be distinctly felt, in the region of the stomach. At the autopsy, a tumor was found, involving the lesser curvature of the stomach, eight inches in length, extending from the pylorus upward, averaging three fourths of an inch in thickness, and involving the whole thickness of the wall of the stomach. It was not examined microscopically, but was supposed to be colloid in structure.

JULY 31st, 1872.—*Fracture of Skull*.—Dr. Paddock, of Pittsfield, reported the case of a man, 25 years of age, who had been killed by a blow upon the head from a base-ball. After receiving the blow, he walked about town for half an hour or more, then went to his boarding-house, and up stairs to bed. His companions observed that he made incoherent answers to their questions, and complained of pain in the head. During the night, he was heard to moan. When called in the morning, he was found to be dying, and died before a physician arrived. An autopsy was made, and a fracture of the skull discovered, beginning at the junction of the coronal with the sagittal suture, and extending down the right side, opening the coronal suture for about an inch, and then passing through the parietal and temporal bones nearly to the ear. Beneath the fracture was found a clot of blood, weighing four ounces. The man was intoxicated when he received the blow, which was a very heavy one, the bat being held in both hands, and laid on with vigor.

OCT 30th, 1872.—*Epidemic of Diphtheria*.—Dr. Wilcox, of Lee, described an epidemic of diphtheria now prevailing in Lee. He had seen thirty-two cases, of which six had died. It was chiefly confined to children, and the youngest patients have the disease the most severely. The epidemic followed immediately upon one of scarlatina, and had been most prevalent in damp places, especially in old houses. Lee is a damp town, and the paper-mill operatives are over-crowded and not over-cleanly. In all cases, there was great depression. The membrane usually forms first upon the tonsils. In the fatal cases, death generally occurred in about eight days, and results from an extension of the deposit to the trachea. During the epidemic, Dr.

Wilcox had seen two cases of common membranous croup, unconnected with diphtheria.

Dr. Mercer, of Pittsfield, remarked that he had lately had several fatal cases of membranous croup in young children with great depression.

Intra-cranial Abscess.—Dr. Davis, of Lenox, reported a case of headache, which he attributed to abscess of the internal ear, pressing upon the third branch of the fifth nerve. The case passed into the hands of a quack, who pronounced it catarrh of the ear. The patient soon died; and, at the autopsy, an intra-cranial abscess was found pressing the brain to one side.

Cerebral Congestion—Paraplegia.—Dr. Wilcox, of Lee, exhibited to the Society a young man suffering from paralysis of the left arm, accompanied with swelling, anæsthesia and formication. The paralysis extended over the shoulder anteriorly. There was a tender spot over the middle cervical vertebra. The arm was as warm as its fellow. Similar symptoms attacked the left foot and leg, a few days later, but soon passed off. The history of the case is as follows: The patient was first seen by Dr. Wilcox on Sept. 22d. Until noon of that day, he had appeared perfectly well, although on the preceding day he was seen, while running in the woods, to strike his head against a tree with violence. Dr. Wilcox found him wildly delirious, and strapped to the bed by feet and wrists. Quiet was produced by a hypodermic injection of morphia. The delirium returned during the night, but there were lucid intervals when the patient appeared well. The pulse was normal; skin cool and moist; tongue coated. On the second day, the morphia was repeated. On the third day, Dr. Paddock was called in consultation, and advised cathartic medicine, which was given, followed by great relief; but the attacks of delirium continued less frequently for a week. The patient retained his strength, and, unless confined and watched, would escape from the house and wander about for hours. During the lucid intervals, he was depressed. At the end of the week, he was lost sight of; but reappeared the preceding day, having been cared for at a friend's house in the meantime. He was not aware of having had any crazy spells of late; but the paralysis had been coming on gradually for a fortnight. Dr. Wilcox considered the case in the first instance as congestion of the brain, caused by the blow upon the head.

Bibliographical Notices.

A New Method for Extraction of Cataract. By R. LIEBREICH, Ophthalmic Surgeon and Lecturer at St. Thomas's Hospital.

A NEAT pamphlet with the above title has been published by Messrs. Claxton, Remsen and Haffelfinger, of Philadelphia. There can be no question that this plan has immense advantages both over the former methods of flap extraction and the unscientific "new method" by peripheral incision proposed by Graefe, and largely adopted on his authority, but now admitted to have been a wide deviation from the true principles of cataract operation. We quote the words of the author, as a brief description of his method. "To avoid the disadvantages in Graefe's operation arising out of the peripheral position of

the wound, and the disadvantages in flap extraction arising out of the height of the flap, I propose a new method of extraction, which is to be made in the following manner:—

"Puncture and counter-puncture are to be made in the sclerotic about one mm. beyond the cornea; the whole remaining incision is to pass, with a very slight curve, through the cornea, so that the centre of it is about two mm. distant from its margin. This incision may be made upwards or downwards, with or without iridectomy, and the lens may be removed through it with or without its capsule. It is, undoubtedly, of all methods the simplest and least painful, the easiest to perform, and requires the least practice."

Prof. Stromeyer, of Havana, referring to his recollections of London operators of forty-five years ago, says, "I often thought of Tyrrell's beautiful operations and their results when the time came that iridectomy seemed necessary for the majority of cataracts before extracting them. I have hailed Dr. Liebreich's innovation as a candid acknowledgment that modern oculists have gone too far in this respect."

The same method of making the incision has been pursued for several years past by Messrs. Le Brun and Warlomont, of Brussels, under the designation of *small median flap*, and has the sanction of their authority. Our own experience has already amply confirmed that of the author, as to the advantages and safety of this mode of extraction, and we commend the pamphlet to the attention of every physician interested in eye operations.

H. W. W.

The Diseases of Women, with special regard to their Treatment in Creuznach. By LOUIS MICHEL, M.D. Second Edition. Berlin: Mitscher and Röstel; and London: Trübner & Co. 1872. Pp. 75.

THE reader of this little volume will not find it an exhaustive treatise on women's diseases, and it is rather deceptive to give to seventy-five pages, in large and open print, a title of such importance. If Dr. Michels had called his paper "The Springs of Creuznach with special reference to their adaptation to the Diseases of Women," he would have given a more honest intimation of the nature of his work. Indeed, in the preface, the author disclaims any intention to give "an elaborate treatise on the diseases of women," and on another page he narrows the subject thus: "Those cases are appropriate for Creuznach in which diseases of the sexual organs give rise to catarrh, and which, as we shall subsequently see, are removed or ameliorated at Creuznach." In other words, Dr. Michels here exalts, in a partisan way, the iodine and bromine characters of his favorite spring, and gives many illustrative cases of "amelioration."

The imprint is German, and it is a treat to read a book so clearly printed. But what is gained in clear typography is sometimes at the expense of correct orthography.

IMMEDIATE REMEDY FOR HÆMOPTYSIS.—A saturated solution of gallic acid, inhaled by means of an atomizer, is recommended by Dr. Holden, in the *New York Medical Record*, as capable of arresting pulmonary hæmorrhage with great promptness, even while the flow of blood is profuse. In urgent cases, he mixes the acid with cold water and uses it without waiting for solution to be perfected.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 6, 1873.

It is our impression that the American Medical Association, some two or three years ago, passed a resolution that, for a medical examination for Life Insurance Companies, a fee of five dollars ought to be charged. Whatever value one may place on the opinion of this Association on many subjects, it must be confessed that, on this particular point, it was right. Every medical examiner thoroughly believes that five dollars is a small sum for an examination, when the time occupied and the responsibility involved are taken into consideration; for the hour devoted to the service of the company is one of the most valuable in the day, and the case often involves many thousands of dollars. But, with one or two exceptions, the examiners in Boston get but three dollars, and when they venture to suggest to their employers that this sum is too little, they are met with the reply that if they are not ready to accept that sum, there are those who are quite willing so to do; and we are sorry to confess that, hitherto, this answer has been sufficient to quiet all demands. They thus virtually confess that they believe that their professional brethren are ready to underbid. Is there such a disposition among the physicians in Boston? If so, how can it be justified? When a physician charges somewhat less than usual for a professional service, it is supposed to be because the patient cannot, without distressing himself, pay the regular fee. Is any one of the Life Insurance Companies too poor to pay a proper fee for medical examinations? Is it willing to confess itself to be in this impoverished condition? It is our impression that all these companies announce themselves to be in a prosperous state.

We wonder that the examiners of this city do not, as a body, make a demand for better remuneration. We believe, also, that it is only reasonable to make a charge for time as well as for services. As the matter stands now, the examiner may give the daily hour to the company without a cent of remuneration. In some of the smaller companies he may, indeed, examine a case only every other day, or even on only two of the six days of the week. The time of the remaining days is thus wholly lost to him. If such a collective demand should avail nothing, the Boston Medical Association should take the subject up.

As regards the matter of underbidding, if the present examiners ask for a reasonable compensation for their time and services, and the companies ask for, and obtain, examinations at a cheaper rate, means ought to be taken to let the profession know who the physicians are who hold their services thus cheaply.

THE FOURTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH was presented to the Legislature January 27th. The following is an abstract of its contents:—

"SMALLPOX.—In our report of last year this subject, which has since become one of absorbing interest throughout the State, was considered at some length. In view of the epidemic then prevailing in Europe and also to some extent in Massachusetts, we thought it would be necessary not only to enforce the laws relating to vaccination, but to repeal the fifty-first section of the twenty-sixth chapter of the General Statutes in order that cases of smallpox should be isolated. The absolute repeal was not accomplished, but the law was so far modified as to give local boards of health much greater power for the removal of persons affected with this disease than they before possessed. Had the law remained as it was, we cannot doubt that the destruction of life would have been greater than has actually occurred.

"We are now in the midst of an epidemic influence of smallpox poison, more virulent than has been known for many generations. The evidence is abundant to show that both in Europe and America there is, for some reason entirely unknown, a readiness in the human body to receive both the virus of smallpox and the virus of the vaccine disease, such as no one now living has before seen. There are records of such epidemics before the great discovery of Jenner, and they were truly terrible, destroying from one-fifth to one-third of all who were seized; and this comprised the whole population, except those who had been previously attacked, or had been inoculated with smallpox virus. The present epidemic is of such intensity that it is quite common for persons who have had smallpox in former years, now to have it again. Such occurrences have been previously rare. Vaccinations, whether from the cow or from the human body, 'take' readily, and re-vaccinations prove abundantly the extraordinary susceptibility to the vaccine disease now prevailing and *never before existing*. In view of these facts, with which physicians and intelligent persons of whatever calling are now familiar, let us thank God for Jenner's great discovery, without which our homes would be desolated and our peace and happiness destroyed. The imagination can hardly picture the horror which would to-day pervade Massachusetts were the present epidemic unchecked by vaccination. We regard the law of the State authorizing town boards of health to remove persons affected with smallpox from their homes only *on certain conditions*, as unfortunate in its operation, and think that it would have been better to repeal the 51st section, 26th chapter, General Statutes, without reservation, leaving it at the option of the local authorities to enforce the removal to a hospital, or provide for the sick in their homes, as might seem safest and best in each individual case.

"The special report on smallpox, published in the third annual report, recommended that the law concerning vaccination be so modified as to require the primary vaccination of children within six months of birth. Three months would be better. Under present circumstances, a new-born child should be vaccinated without a week's delay. The advice which has thus far been given by our board with reference to smallpox has been as follows:—On the 10th of April, 1871, a circular was sent to the authorities of every city and town, warning them

of the impending danger from smallpox, and urging the importance of immediate vaccination before the epidemic should get a footing within their boundaries. Inquiries were then made from our medical correspondents all over the State concerning the protection of the people by vaccination. Their replies, with other information on the general subject, were made the basis of a report on smallpox by our Secretary, presented to the Legislature in January, 1872. The Board at that time recommended the repeal of the 51st section of the 26th chapter, General Statutes.

"We would again urge upon the boards of health of cities and towns:—

"1st. To see that every person within their jurisdiction has the protection of recent vaccination.

"2d. To use all the powers which are permitted under the General Statutes to *isolate* every case of smallpox or varioloid which may occur.

"3d. To provide for the destruction of smallpox virus, under medical advice, in all infected clothing and premises.

"Having done these things, their whole duty as regards smallpox will have been performed."

MILLER'S RIVER COMMISSION.—Report is made of this investigation by the Board of Health and Harbor Commissioners, and the conclusions are given which were adopted by the Commission.

SEWERAGE OF THE METROPOLITAN DISTRICT.—The Board recommend a survey by engineers in order that a complete and harmonious system may be finally adopted, and refer to the objections made by the city of Boston to the plan recently proposed at the extra session.

REVISION AND CODIFICATION OF HEALTH LAWS.—It is stated that the interpretation of the meaning of these laws is often difficult by reason of their complexity, and that it would greatly conduce to the efficiency of the local Boards, and to the maintenance of public health, if they could be reduced to a form which any intelligent citizen could perfectly comprehend.

THE LAW CONCERNING SLAUGHTER-HOUSES AND NOXIOUS AND OFFENSIVE TRADES.—Numerous complaints have been received by the Board during the past year concerning establishments liable to be closed by the operation of this law. In every case, however, with the exception of one very recently brought to notice, the party complained of, when visited by the secretary, has expressed a willingness to do everything which the Board and the complainants thought necessary. Such concessions have satisfied all parties, and the complaints have been withdrawn.

This disposition is in striking contrast with the experience of the Board in 1871, when "hearings" were necessary in nineteen cases, and many of them were very protracted through the testimony of a great number of witnesses and the elaborate arguments of counsel on both sides. It is very apparent that the readiness of parties, maintaining nuisances of a character which makes them amenable to the State Board of Health, to do all which is needful to protect the health, comfort and convenience of their neighbors, is the direct result of the orders issued by our Board in the summer of 1871.

BOARDS OF HEALTH OF CITIES AND TOWNS.—The State Board strongly urge upon citizens throughout the State to have the local Boards filled with active, competent men, and think that one member of every such Board should be a physician.

BUTCHERS' SLAUGHTERING AND MELTING ASSOCIATION AT BRIGHTON.—This establishment is nearly finished, and will be in operation before the adjournment of the legislature. It is a work of great magnitude. The Board of Health has approved all plans and supervised the construction. Everything is substantial and satisfactory, and the proprietors are highly commended for their enterprise and public spirit. The Board calls the attention of the legislature to the fact that no provision has yet been made for the inspection of animals and of meat: "That such inspection is absolutely necessary to complete the benefits which the public will receive from the abattoir needs no argument. Whoever buys meat from this slaughter-house must in some way be assured that the animal was in health when killed. The fresh meat will be consumed for the most part within twenty miles of Boston, but the salted meats will be distributed far and wide. We respectfully ask the legislature to provide for the appointment of an inspector of animals and of meat at the abattoir of the Butchers' Slaughtering and Melting Association at Brighton, with an adequate salary, to be paid by the State, and that this inspector be under the control of this Board, since we are by the law made responsible for the safe and proper management of the establishment."

Special investigations have been made during the year of various subjects having a direct influence on the maintenance of public health.

1. *Sewage and Sewerage.—The Pollution of Streams.—The Water Supply of Towns.*—This report is in accordance with an order of the legislature and is a voluminous document. It is presented by Prof. William Ripley Nichols and Dr. George Derby, Secretary of the Board, who are jointly responsible for all statements therein contained. Some of the divisions of this report are under the following headings: Dry earth system; water carriage system; refuse not movable by sewers; meat and vegetable refuse—how disposed of in Massachusetts; sewers now in use in Massachusetts; outlets of sewers; English experience; treatment of sewage by chemical processes; intermittent downward filtration; irrigation; treatment of sewage in Massachusetts; analysis of sewage of Boston and Worcester; effect of sewage on running streams; Blackstone River; Merrimac River; Mill Brook; self-purification of rivers; water supply of towns; lakes and great ponds in Massachusetts; lakes supplying metropolitan district; protection of lakes from pollution; plan for utilizing the sewage of Worcester.

2. *Additional analysis of Evidence as to the use and abuse of intoxicating Liquors. Beer-shops and Prohibitory Laws.* By the Hon. P. Emory Aldrich.

3. *On the Character of Substances used for flavoring articles of Food and Drink.* By Henry K. Oliver, M.D.

4. *Drainage for Health.* By Hon. H. F. French.

5. *Infant Mortality.* By Edward Jarvis, M.D.

6. *The Food of the People of Massachusetts.* By George Derby, M.D., Secretary of the Board.

7. *The Adulteration of Milk.* By Arthur H. Nichols, M.D., assisted by Prof. James F. Babcock.

8. *Analysis of a Correspondence on some of the causes of Consumption.* By Henry I. Bowditch, M.D., Chairman of the Board.

9. *Adulterations and Impurities of Food.* By H. B. Hill, Assistant in Chemistry, Harvard University.

10. *House Accommodations of the Poor in our most populous Cities.* By F. W. Draper, M.D.

11. *Health of Towns.* This annual statement from correspondents of the Board relates chiefly in the present report to the condition of towns of 4000 inhabitants and upwards, as regards sewerage and water supply. Other and various information is, however, included.

The mortality of Boston in 1872 has been unprecedented. The deaths in 1872 exceeded those of 1871 thirty-seven per cent. Exclusive of smallpox the increase has been twenty-five per cent. The Board say: "Such results seem fully to justify all which has been said in previous reports of our Board concerning the culpable neglect of public health by the city authorities of Boston. Public opinion has at last been thoroughly aroused, and has compelled the aldermen to relinquish a large share of the power which they could not wisely exercise, and has placed it in the hands of an independent Board from which we have reason to expect the most salutary reforms. In all their efforts to reduce the mortality of Boston they will have the cordial coöperation of our Board.

It will be seen that *trichina disease* has occurred in Framingham. This is another warning against eating pork which is not *thoroughly cooked*.

The expenditures for the year have been \$3878.86 of the \$5000 appropriated.

THE following is from the *London Times* of January 6th, published, it will be seen, a few days before the Emperor's death:—

"The very name of the disease by which the Emperor is disabled will at once convey to the minds of professional readers an approximately correct idea of what he must have been called upon to endure. It was his experience of the same condition which induced Paley to declare that no other conceivable pleasure was comparable to the cessation of pain; and there are, indeed, few of the ills to which flesh is heir that make a larger demand upon human fortitude. Within the memory of many who are now living there was for such sufferers no means of escape from a lingering and painful death, except by a surgical operation of great severity, and one which was attended, in persons past the middle period of life, by such mortality that there was comparatively small inducement to submit to it. According to statistics founded upon large experience, about one in every four of the patients so operated upon, if above the age of 45 or 50, died from the effects of the operation; and hence it was commonly postponed to the latest possible time, and practised only as a last resource. But towards the close of the first quarter of the present century, attention began to be given to a milder form of operation, by which the intrusive substance could be broken into fragments within the body of the patient, and then expelled by the efforts of nature. The process, not actually originated, but practically introduced into Europe by Civiale, was first employed in this country by Baron Heurteloup, who spent some time in exhibiting and teaching it in English hospitals. Slowly and by degrees it has been brought to its present state of perfection, mainly by the labors of Brodie, Fergusson and Thompson among sur-

geons, and by those of Messrs. Weiss in the invention and construction of the instruments by which the mechanical difficulties of the process are overcome. The Emperor Napoleon is the second royal patient for whom the skill of Sir Henry Thompson has been put in requisition; for he operated successfully upon the late King of the Belgians, and thus enabled him to close peacefully his long career. In this, as in every other surgical proceeding, the experience of the first years after its introduction has been made available for the study of the conditions which tend to failure, and of the means of obviating them; and the last published statistics of the crushing operation show 93 per cent. of recoveries, or even 96 per cent., if, out of a total of nearly 200 cases, we set aside a few deaths arising from causes apparently unconnected with the operation. In otherwise healthy persons, and when the calculus is of small size, crushing may be considered wholly free from danger, and it is only in dealing with larger masses of deposit, and with cases complicated by intercurrent maladies, that a certain though small percentage of mortality is experienced. The Emperor, unfortunately, has reached a period of life at which the strength of maturity is usually beginning to give way to the feebleness consequent upon degeneration of the bodily textures; and the bulletin of Saturday informs us, not only that the calculus was a large one, but that it had probably been some years in course of formation, and that it may, therefore, have set up local mischief among the structures irritated by its presence. It will doubtless be necessary to repeat the crushing more than once, perhaps several times; and each repetition will add to the possible danger of the patient. The account we publish to-day states that the Emperor has passed a less tranquil night; and this announcement, while we trust it may be superseded by the reports of to-morrow, is still quite enough to occasion and justify some degree of apprehension, and the bulletins will be looked for with a certain anxiety. Happily the Emperor has at his command a degree of surgical experience and manipulative skill which no other country in the world could furnish. To persons of less exalted station it is often a comfort to reflect that, after all, and whatever the result, the best possible thing has been done; and this consolation, at least, will be found at Chiselmhurst."

A NEW METHOD OF TREATING RETENTION OF URINE AND IMPASSABLE STRICTURE. By FURNEAUX JORDAN, F.R.C.S. (*Brit. Med. Journal*, Nov. 9, 1872.)—The author states that he has been for a long time considering the possibility and propriety, in cases of retention of urine and impassable stricture, of getting behind the stricture and passing instruments forwards—the way the urine runs.

The case is related of a patient who had a distended bladder and dribbling of urine consequent upon retention. Repeated efforts to pass instruments failed.

Dr. F. then carried the left forefinger and a pointed bistoury into the rectum; the point of the bistoury was then thrust forwards through the anterior median line of the rectum, an inch and a quarter from the anus, into the membranous part of the urethra and then drawn forwards for a short distance through the incision. The finger could then be easily passed to the stricture in front, and backwards into the bladder.

A bougie was passed forwards through the stricture, and emerged from the end of the penis; the ivory open end was then cut off and carried by the finger backwards into the bladder. The catheter, through which the urine flowed freely, was allowed to remain twenty-four hours and was then withdrawn and a larger one passed through the meatus, until soon a No. 12 could be passed without difficulty. After the patient had been allowed for a few days to pass the urine by natural efforts, during which a little entered the rectum, the rectal fistula was closed in eight days by drawing off the urine several times in the twenty-four hours, especially before each act of defecation.

The author claims that by thus opening the urethra in front of the apex of the prostate gland the danger of wounding the peritoneum is avoided—a danger which is present in the ordinary puncture of the bladder by the rectal trocar, for the reason that, in cases of retention resulting from old stricture, the prostate is apt to be crowded back nearer to the peritoneal cul de sac than it is found to be situated in the normal state of things.

For a full report of this interesting lecture, together with the plates illustrative of the operation which is here advocated, we must refer the reader to the journal from which we have made this brief extract.

THE PHENOMENA OF MENSTRUATION.—The views of Pflüger (*Schroeder's Manual of Obstetrics*) with reference to the cause of the phenomena of menstruation, are as follows: A constant irritation is exerted on the extremities of the nerves imbedded in the fibrous stroma of the ovary by the slow but uninterrupted growth of the Graafian follicle. This is not sufficiently intense to produce reflex action at once, but in the intermenstrual period, the total irritation is so great that reflex action takes place in the form of marked arterial congestion. This sudden increase in the amount of blood produces essentially two results: In the first place, that Graafian follicle which is the farthest advanced in development ruptures, in consequence of the increased intra-follicular pressure; while, in the second place, a hæmorrhage takes place from the free surface of the uterine mucous membrane; hence the escape of the ovum from the follicle, and the menstrual flow, are joint effects of one and the same cause, namely, the pressure which the developing follicle exerts on the extremities of the nerves, which are distributed throughout the ovarian stroma.—*Med. Record*.

BORAX AND THE NITRATE OF POTASSA IN THE LOSS OF VOICE FROM "COLDS" IN PUBLIC SPEAKERS AND SINGERS.—Dr. J. W. Corson (*Med. Record*, January 1, 1873) states that by the use of these two remedies he has had the pleasure, within the last few years, of restoring to a number of clergymen and lecturers the lost gift of speech within twenty-four hours. The paper contains a statement of several cases. He sums up the results of his experience in the following conclusions:

"1. That in sudden hoarseness or loss of voice in public speakers or singers, from 'colds,' relief for an hour or so, as by magic, may be often obtained by slowly dissolving and partially swallowing a lump of borax the size of a garden-pea, or about three or four grains, held in the mouth for ten minutes before speaking or singing. This pro-

duces a profuse secretion of saliva, or 'watering' of the mouth and throat. It probably restores the voice or *tone* to the dried vocal cords, just as 'wetting' brings back the missing notes to a flute when it is too dry.

"2. Such 'colds' may be frequently 'broken up' at the very commencement, and this restorative action of the borax to the voice may be materially aided by promptly taking, the evening previous to a public effort, dissolved in a glass of sweetened water, a piece of the nitrate of potassa, or 'saltpetre,' a little larger than a garden-pea, or about five grains, on going to bed, and covering with an extra blanket. The patient should keep warm next day. This both moistens the dry throat and further relieves the symptoms of 'cold' and slight blood-poisoning from suppressed perspiration, by re-opening the millions of pores of the skin more or less closed by cold.

"3. These remedies have the three recommendations of being easy to obtain, convenient to carry in travelling, and perfectly harmless.

"4. They are nearly or quite useless in the actual cure of any long-continued chronic disease of the throat, or acute inflammation or 'tonsillitis,' both of which require other appropriate treatment."

Correspondence.

"IN-FLESHED" TOE-NAIL.

MESSRS. EDITORS.—It is gratifying to have one's "procedure" successful in the hands of other practitioners. Little or great, the concept was original; and, after pretty thorough search, no one like it could be found published or unpublished. We can assure Dr. Gunn that the operation founded upon it had been tested and proved to be successful in this vicinity years before the appearance of the German student in his neighborhood. It is, moreover, quite certain that the "operation" described by the student was *not* "the identical procedure given by Dr. Cotting," inasmuch as the principle on which the latter is founded is evidently misapprehended or not fully comprehended, or else Dr. Gunn had been successful where he confessedly failed, namely, "in an *inverted* condition of the edge of the nail"—a class of cases peculiarly amenable to the new plan. This very day we have seen a case of the *inverted* condition, which was operated on nearly eight years ago, with a success that has been and continues to be all that could be desired. It is only requisite to remove a portion sufficiently large and deep, from the proper location, and cicatricial contraction will inevitably prevent a recurrence of the affection. It is to the *cicatricial contraction* that the whole operation must have reference, to insure success, and it is this which makes it a scientific "procedure." Attention to this principle, and a little care in the operation, will render the "barbarous practice" of extirpation of the nail and matrix, or any portion of them, entirely unnecessary. B. E. C.

[We understand that an operation, similar to that described by Dr. Cotting, has been in use at the Massachusetts General Hospital in imitation of the method employed many years ago, in Paris, by Gerdy, who was in the habit of taking out his jack-knife and whittling off the diseased part.—Eds.]

ZURICH AND FEMALE MEDICAL STUDENTS.

MESSRS. EDITORS.—The eyes of Europe, and perhaps America, are often directed now-a-days to an experiment which is being quietly tried in the small University of Zurich. A short stay there last summer, and the peru-

sal of several pamphlets upon the subject, written by professors of that city, has supplied me with some facts relating to the study of medicine by women, which, as far as they go, are worth all the heated discussions and absurd tirades with which we are so frequently assailed; at least I think so.

I have no desire to involve either myself or the JOURNAL in a wordy warfare upon this delicate matter, and will therefore write a simple, ungarnished tale, and give to others the privilege of using and abusing my material to their heart's content. Facts, and not fancies, ultimately prevail in this world, and to facts must we appeal to decide all the vital questions that the progress of civilization and education evolve from chaos.

Previous to the year 1864, the portals of the Zurich University had, with two exceptions, been opened only to male students. Two ladies of Zurich had received, by special act of government, the privilege of attending the lectures of the philosophical faculty; they were admitted, however, only as listeners (*auditores*), and were not matriculated.

In the autumn of 1864, Miss K., of Russia, made application at the rectorate for permission to attend the lectures, not only upon scientific subjects, but also those upon anatomy and microscopy; this was granted on condition that the instructors raised no objections. It transpired, after a while, that this young lady intended to pursue the whole regular course of medical studies.

About Easter, another Russian, Miss S., who had already made some progress in the study of medicine, arrived and attended the lectures on the same footing as her fellow-countrywoman. As the presence of two ladies pursuing the regular course of studies somewhat altered the aspect of affairs, the question whether they should be matriculated or altogether excluded was brought before the academic senate. After a long session, in which the matter was fully discussed in all its bearings, it was voted to lay the subject on the table for the time being, with the sole requirement that any woman who wished to attend more than two courses of lectures must obtain special permission.

The first Russian, who proved less capable than the second, vanished in 1867, but the latter prosecuted her studies with such energy and persistence that she soon won the respect of both professors and students. She fulfilled all the requirements of the regular course without having gone through the form of taking her matriculation. In February, 1867, she demanded to be admitted to the examination for degree, but was directed first to obtain her matriculation papers. The Rector, after consultation with the Swiss Minister of Education, interpreted the law—in which the matriculation of female students was neither allowed nor forbidden—in favor of the applicant in question. As the young lady had now been matriculated, admission to the examination for degree could not be refused her, so that after her acquirements had been subjected to a rigorous test in every branch of medicine, she received the medical diploma.

This success was not, as had been anticipated, the signal for an afflux of female students. In the following two years only three English women, one Russian and one American studied medicine in Zurich and came up for degree, while one Englishwoman and three Russians were matriculated, but left soon after. In the summer term of 1868, the first female student, an Englishwoman, was matriculated by the philosophical faculty, but left at the end of the term. In the winter term of 1869-70, six Russians appeared, of whom three departed without examination. In the summer term of 1870 three Russians arrived, who also left without degrees. In the winter term of 1870-71, the number of those newly matriculated rose to eleven, of whom five left without degree. In the summer term of 1871, a single female student was matriculated, whereas two left without, and one with the diploma.

Thus far the study of medicine by women had developed but slowly in Zurich. Of the twenty-five female students who had attended the medical lectures for irregular periods since 1864, three left with, and seven without,

their degrees; of the seven matriculated in the philosophical department, three had departed without the diploma. In the summer term of 1870, but fifteen women studying medicine, and four philosophy, remained.

In the next term, 1871-72, the number rose from nineteen to thirty-one, and in the summer term, 1872, from thirty-one to sixty-three. With the increase in quantity a decrease in quality was perceptible; this was due chiefly to the fact that quite a number of them had not the requisite age, training and devotion to their studies. Among the sixty-three there were fifty-four Russians, in whose country, though no university is open to women, yet so-called public lectures for women are delivered in two years courses. The first Russians stated that in the interior of that great country there were long stretches where no physician could be found, and where they intended to practise; this induced many lecturers to favor their admission to the courses on the score of humanity. It was also hoped that the doors of all German universities would be thrown open to them; this has not taken place, and the Zurich university is left to vie alone with the crowd of female students.

That the prosperity of that institution has not been impaired is evident from the number of students now frequenting it; this has increased from 232 in 1864 to 354 in 1872. The gain is especially marked in the medical department, which was attended by 107 male and 1 female student in 1864, whereas in the summer of 1872 there were 208 students, of whom 51 were women. The greater throng of these last has now stimulated the faculty to appeal again to the government for a special examination for women.

In this connection, one fact is deserving of mention. In July, 1871, the principal medical bodies in most of the Swiss cantons explicitly voted by a large majority in favor of the admission of female candidates to the so-called medical "concordats" examination; the action was induced by the announcement that the first Swiss girl, who had been studying in Zurich, had applied for the State examination. As a consequence of this, the young lady referred to has honorably passed the first State examination. Switzerland, which has notably favored in every possible manner the education of women and their appointment to service in the post and telegraph offices, has thus taken a most decided stand for the extension of the sphere of women's privileges.

It is admitted by all the professors that the experiment of women's study of medicine in Zurich was perfectly successful in the first four or five years, when only six or eight women were there enrolled. No irrelevant conduct on the part of the students was noticed; in fact, the modest and sensible demeanor of the young women exerted rather a favorable influence upon the behavior, habits and earnestness of the men.

The first female students in Zurich were so convinced of the importance of a more strict discrimination in the admission of women to the courses, that they took the initiative in demanding that certificates or tests of proficiency should be required, to which a part of them begged to be also subjected. They foresaw that the whole experiment would fail if too young or immature girls should attend the lectures without sufficient preliminary training or devotion to the work. Of this they often spoke themselves.

Six women have already passed with honor the examination for the medical degree. Four received "good" as a comment, and two "very good." Several of the professors have, at their graduation, taken the opportunity of expressing, in public, their perfect satisfaction at the progress made by the female students.

The woman who took the first degree now enjoys a large practice in St. Petersburg. The third female graduate, who is now the wife of a St. Petersburg physician, joined, in January, 1871, the Zurich ambulance train, which was sent to the battle-field near Belfort; the director, Prof. Rose, states that in the hospital near Hericourt "she soon won all hearts by her modest, self-sacrificing activity."

The second female doctor of the Zurich University—an English woman—has just received the position of assistant physician to the Woman's Hospital recently founded by Mrs. Garret-Anderson in London. The fifth female

graduate has been recently appointed visiting physician of a Woman's Hospital about to be established in Birmingham.

"The fourth woman, who received her medical degree in Zurich on Oct. 26, 1871—an American, from Boston—went to Vienna for the purpose of pursuing her studies still longer, but intends to return ultimately to Boston; even before the commencement of her studies, she had been assured of receiving the post of physician to the Children's Hospital in that city, if she returned with her degree from Zurich within a certain period. Dr. Hermann Meyer, Professor of Anatomy, expressed to this young lady in public, at the time of her graduation, the respect of his colleagues 'because of her energy and determined, high-minded perseverance,' and added, that 'by her example she had shown that it was possible for women to devote themselves to the practice of medicine without discarding the true characteristics of woman.'"

The sixth woman, who has recently passed the medical examination with great distinction, has been appointed, by Prof. Dr. Biermer, director of the medical clinic, second assistant in the women's department of the Zurich Hospital. It is universally acknowledged that she fills her post most efficiently.

The chief objection made to the attendance of both sexes is on the score of the moral dangers. The professors of the Zurich University have expressed their opinion officially upon this most delicate point, in reply to the following questions addressed to them by the Medical Faculty of Würzburg, in 1870: "Whether and what improprieties have attended the admission of individuals of the female sex to the courses, and especially from their association with male students during certain lectures and demonstrations, from which womanly modesty might be expected to shrink?" The following was the response:—"With respect to this question, the faculty of the University of Zurich finds that the presence of female students in the theoretical and practical courses gives rise to no troubles of any kind. The lectures and demonstrations are conducted without any reference to the ladies present, and even in the anatomical exercises and clinical exhibitions the material is as thoroughly used as when only male auditors were present. In spite of this no unpleasant event has occurred. As a six years' experience has already been acquired, the faculty now looks forward with satisfaction to a further solution of the problem being tested. The faculty is also of opinion that the earnest desire to work and the discreet behavior of the young ladies studying medicine here, as well as the polite deportment and peaceful disposition of the Swiss students, have contributed largely to the results thus far obtained."

That the question of women's study of medicine is answered by the experience of Zurich is not claimed even by its warmest advocates in that city, yet all unprejudiced observers must admit that the testimony of those who have watched the working of the experiment there is worthy of great weight. This I have attempted to give a fair statement of in the above pages, without committing myself either for or against the principles involved. This is not the first time that women have studied and practised medicine in Germany,† for on June 12, 1754, Frau Dorothea Christiania Erxleben received the medical degree after proper examination. She practised in the small city of Quedlinburg, and was wife of the deacon of the St. Nicholas church. In the history of her life she wrote "that marriage was no obstacle to a woman's studies, but that their pursuit was far pleasanter in the companionship of an intelligent husband."

I am very truly yours,

Berlin, Dec. 1st, 1872.

JAMES R. CHADWICK, M.D.

* Das Studiren der Frauen, by Prof. Dr. Victor Bohmert, of Zurich. To the same pamphlet I am indebted for many of the details contained in this letter.

† The University of Zurich is popularly regarded as one of the German Universities, not only from the use of the German language, but because, in the words of its founder, "It was established to be a citadel of German science in Switzerland."

Medical Miscellany.

THE commencement exercises of the Dental School of Harvard University will be held on Wednesday next, at the Medical College in North Grove Street, at 12 o'clock. An address will be delivered by Charles S. Tomes, M.A. Oxon., M.R.C.S., L.D.S., of London, England.

DR. HILGENDORF, Senior Professor of the Polytechnic Institute in Dresden, has accepted the chair of Natural Science in the School of Medicine at Jeddo, Japan. Dr. Cochins, formerly of the Victoria College in Berlin, has also been appointed Professor of Physics and Chemistry in the same institution.

THE custodian of the Imperial Library in Berlin offers a reward of five hundred dollars for the recovery of seven exceedingly valuable manuscripts that have been recently stolen from that establishment.

FEMALE MEDICAL EDUCATION IN THE EDINBURGH ROYAL INFIRMARY.—At the meeting of the managers of the Royal Infirmary, held on Monday, the following resolution was passed: "That the managers of the Royal Infirmary resolve to admit females already enrolled in the student's register for Scotland to receive clinical instruction, at a separate hour from that at which male students are admitted into the hospital, and in a stated number of wards, containing eighty beds, to which the female students must confine their visits; and remit to a sub-committee to make the requisite arrangements and alterations."—*British Med. Journal*.

THE City Physician of Providence reports that there were four deaths from smallpox in that city during the month of December, a very unusual number for that city. A case of smallpox was received from Boston about the first of October, and since that time the whole number of cases in the city has been 25. This includes both the unmodified cases and the modified. Some of them were very slight. Of the whole number, 25 cases, 18 are positively known to have originated in Boston directly, or indirectly. At the present time there are only five cases known in the city, of which three are very slight cases of the modified disease. They are all at the hospital at Field's Point.

In concluding his report, he states that all our cities showed a large increase of mortality in 1872, as compared with the previous year. The increase in Providence was 27.6 per cent.; in Boston 34.4 per cent.; in Philadelphia 28 per cent.; in Brooklyn 23.2 cent.; in New York 21 per cent.

THE STUDENTS' JOURNAL AND HOSPITAL GAZETTE.—The year 1872 was fruitful in medical students' journals, and 1873 has begun with another. The students at Guy's Hospital commenced last year a creditable periodical; and their brethren at Aberdeen a fortnightly journal, admirably conducted and of some pretension. With the view of supplying the students at the various metropolitan schools with a periodical "that will be of assistance to those students who are preparing for medical and surgical examinations," and which will give the hospital doings and news, including also original stories of a professional character, which we presume will be culled from the smart sayings of hospital surgeons, the periodical now before us, *The Students' Journal and Hospital Gazette*, has been brought into the world. It contains "Our Introductory," extracts from the ordinary works on anatomy and physiology, an abstract of a lecture by Mr. Hancock, and paragraphs of news from hospital correspondents. "Literature and the Drama" are not forgotten, and "Science and Art" have their share of space. The journal is to appear fortnightly.—*British Medical Journal*.

A NEW MEDICAL JOURNAL is announced—*The Medical Record*—to be published weekly in London, and “to supply medical readers with a condensed, readable and reliable analysis of the immense mass of information relating to the medical sciences now scattered over the surface of British and Foreign periodical medical literature.”

NOTES AND QUERIES.

Messrs. Editors.—The secular papers say that Isaac Fletcher, æt. 12, East Boston, under the care of Dr. Bushnell, died, a short time since, from the effects of vaccination with *humanized* vaccine virus. Is this so? You have told us of two cases (Page 78) fatal from non-humanized virus. Let us know all the truth. It is able to stand upon its own legs. B.

The following is going the round of the newspapers:

“There is a report that a case of burying alive has recently happened in Berkshire County, the victim coming to and making her case known by groaning as she was being deposited in a cemetery vault.”

If true, will not some competent Berkshire physician let us have the particulars—the whole truth. DOUBTER.

BOOKS RECEIVED.—*Diseases of the Ovaries. Their Diagnosis and Treatment.* By T. Spencer Wells. New York: Wm. Wood & Co. Pp. 478. (From the Publishers.) For sale by A. Williams & Co.—*The Ocean World.* From the French of Louis Figuer. New Edition, revised by E. Prescott Wright, M.D. With 435 Illustrations. New York: Harper & Brothers. Pp. 656.—*Handbook of Physiology.* By William Tenhouse Kirkes, M.D. Edited by W. Marrant Baker, F.R.C.S. With 248 Illustrations. Eighth Edition. Philadelphia: Lindsay & Blakiston. 1872. Pp. 825. For sale by A. Williams & Co.—*A Handbook of Therapeutics.* By Sydney Ringer, M.D. Third Edition. New York: William Wood & Co. 1872. Pp. 560. For sale by A. Williams & Co.—*Illustrations of the Influence of the Mind upon the Body in Health and Disease, designed to elucidate the Action of the Imagination.* By Daniel Hack Tuke, M.R.C.P. Philadelphia: Henry C. Lea. 1873. For sale by A. Williams & Co.—*Aids to the Diagnosis of Diseases of the Kidneys.* By W. R. Basham, M.D. Philadelphia: Lindsay & Blakiston. 1872. Pp. 46. For sale by A. Williams & Co.—*The Practice of Surgery.* By Thomas Bryant, F.R.C.S. 507 Illustrations. Philadelphia: Henry C. Lea. 1873. Pp. 284. For sale by A. Williams & Co.

PAMPHLETS RECEIVED.—*The True Object of Medical Legislation.* By Stephen Rogers, M.D. Albany. 1873. Pp. 15.

DIED.—In this city, 2d inst., Dr. Barker B. Kent, aged 28 years 5 months.—At Rainsford Island, Boston Harbor, Jan. 28th, Dr. Robert Greer, aged 67.—At Newburyport, Feb. 1st, suddenly, Henry C. Perkins, M.D., aged 68.

MORTALITY IN MASSACHUSETTS.—Deaths in thirteen Cities and Towns for the week ending January 25, 1873.

Boston, 153—Charlestown, 19—Worcester, 18—Milford, 3—Chelsea, 10—Cambridge, 28—Salem, 10—Lawrence, 15—Springfield, 2—Lynn, 8—Fitchburg, 3—Newburyport, 3—Somerville, 4. Total, 276.

Prevalent Diseases.—Smallpox, 48—consumption, 38—pneumonia, 27—scarlet fever, 20—croup and diphtheria, 12—typhoid fever, 10.

The deaths from smallpox were as follows:—In Boston thirty-five, Charlestown five, Cambridge five, Chelsea one, Salem one and Lawrence one. The deaths from scarlet fever were as follows:—In Boston eleven, Cambridge three, Chelsea two, Salem two and Lawrence two.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, February 1st, 1873. Males, 107; females, 59. Accident, 2—apoplexy, 1—inflammation of the bowels, 1—disease of the bowels, 1—bronchitis, 2—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 1—cancer, 5—cholera morbus, 1—cerebro-spinal meningitis, 2—consumption, 24—convulsions, 4—croup, 2—debility, 1—diarrhoea, 1—dropsy, 1—dropsy of the brain, 2—disease of the hip, 1—infantile, 1—diphtheria, 1—erysipelas, 1—scarlet fever, 7—typhoid fever, 4—disease of heart, 6—homicide, 1—disease of the kidneys, 4—congestion of the lungs, 1—inflammation of the lungs, 14—marasmus, 8—old age, 6—paralysis, 4—premature birth, 1—puerperal disease, 3—rheumatism, 2—smallpox, 42—tumor, 2—whooping cough, 2—unknown, 1.

Under 5 years of age, 48—between 5 and 20 years, 19—between 20 and 40 years, 48—between 40 and 60 years, 23—over 60 years, 28. Born in the United States, 103—Ireland, 37—other places, 26.